PODOL'SKIY, V. G.

Min Construction of Enterprises of the Metallurgical and Chemical Industry USSR. Central Sci Res Inst of Industrial Structures (TsNIPS). Moscow, 1956.

M-U Cen Res. Inst. of Industrial Buildings & Structures

PODOL'SKIY, V. G.:--"Investigation of the internal dynamics of vibrations-measuring instruments used in testing buildings (problems of the precision of measurement of vibration in structures)." Min Construction of Enterprises of the Metallurgical and Chemical Industry USSR. Central Sci Res Inst of Industrial Structures (TsNIPS). Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis', No. 20, 1956

PODOLSKIY, V. G.

PODOLSKIY, V. G.

1355. Podolsky, V. G., Seismic electromagnetic generator for measuring vibrations of small amplitude (in Russian). Trans. Proc. St. no. 8, 44-45, 1944.

An electromagnetic generator for measuring small oscillations (0.00005-0.1 mm) of building constructions is described. The generator has been constructed on the arrangement of a transformer with a variable gap and is fed by a current of 200 ~ frequency. The core of the transformer (together with the coils) is a seismic mass for the instruments; the armature is rigidly attached to the body. A recording is effected with a C. R. oscillograph (the carrier frequency is recorded, modulated by the recorded oscillation). The amplification of the generator with a U Sh oscillograph (sensitivity 12.5 mm/mA) is 1675. The natural frequency is about [illegible]. The working range is 5-[illegible] cps. A specimen of the recording of the oscillations of the earth of a pile driver is given. There is no information regarding the damping of the instrument.

Courtesy of Referativnyi Zhurnal M. S. Aursyferov, USSR
Translation, courtesy Ministry of Supply, England

(Mingh NII

S/124/61/000/012/006/038
D237/D304

AUTHOR: Podol'skiy, V. G.

TITLE: On the theory of mechanical vibration recorders of the seismic type applied in the control of structural vibrations

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 12, 1961, 17, abstract 12A126 (Sb. tr. Yuzhn. n-i. in-t prom. str-va, 1959, no. 1, 105-118)

TEXT: On the assumption that the force opposing the motion of mass of the seismic type vibrograph represents the force of dry friction, the response of the apparatus is studied to free harmonic vibration and to analogical damped vibration where damping is exponential and dependent on the parameters of the system and the signal. The problem is reduced to considering the motion of an oscillator with dry friction under the action of corresponding disturbing forces. For the case of simple harmonic disturbance,

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On the theory of...

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periodic motion of the seismic mass with momentary stops is sought in the form of a trigonometric series. The case when the motion ceases for longer periods is solved approximately on the assumption that the hardness of the spring of the apparatus is negligibly small. The resulting equation coincides with that investigated by L. G. Loytsyanskiy in solving a problem of motion of a body on a sieve oscillating longitudinally (L. G. Loytsyanskiy, A. I. Lur'ye, Teoreticheskaya mekhanika, Part III, ONTI, 1934). Graphs are constructed of the measurement error, ref. parameters of the system, for various cases. A number of examples are given of practical utilization of the results in analyzing recordings, construction of characteristics and in designing vibration recorders of seismic type. 4 references. [Abstracter's note: Complete translation.]

Card 2/2

NORKIN, Yakov Abramovich, inzh.; VOZHDAYEV, Ivan Nikolayevich, inzh.; PODOL'SKIY, Viktor Il'ich, inzh.; PONOMARENKO, Vasiliy Timofeyevich, inzh.; PRONOV, Konstantin Konstantinovich, inzh.; REMPEL', Aron Iosifovich, inzh.; UGLINSKIY, Anatoliy Yakovlevich, inzh.; KHITROVA, N.A., tekhn. red.

[Repair of diesel locomotives]Remont teplovozov. [By] IA.A.Norkin i dr. Moskva, Transzheldorizdat, 1962. 300 p. (MIRA 15:12)
(Diesel locomotives--Maintenance and repair)

PODOL'SKIY, V.I.; SHAUMYAN, G.A., doktor tekhn.nauk

Reviews and bibliography. Mekh. i avtom. proizv. 18 no.12:51-52 D '64. (MIRA 18:3)

1. Zamestitel' glavnogo bukhgaltera po mekhanizatsii upravlencheskogo truda 2-go Moskovskogo chasovogo zavoda (for Podol'skiy).

PODOL'SKIY, V.I.

Determining the nomenclature and geographical coordinates of the top margins of topographic maps and field sheets. Trudy TIIIMSKH no.8:205-212 '57. (MIRA 15:5)
(Topographic maps)

PODOL'SKIY, V.I.

The UAZ-451D motortruck. Biul.tekh.-ekon.inform. no.12:77-79 '61. (MIRA 14:12)

(Motortrucks)

PODOL'SKIY, Vladimir Isakovich; ISAKOV, V.I., prof., red.;
CHIZHEVSKAYA, K.M., red.

[Planning and the organization of machine accounting with the use of keyboard calculating machines] Proektirovanie i organizatsiia mekhanizirovannogo ucheta s primeneniem schetno-klavishnykh mashin. Moskva, Statistika, 1964. 247 p.
(MIRA 18:4)

Podol'skiy, Vladimir Ivanovich

ZISLIN, Samuil Grigor'yevich; IRKHIN, Ivan Vasil'yevich; PODOL'SKIY, Vladimir Ivanovich; PROSVIRNIN, Aleksandr Dmitriyevich; BORISOV, N.I., red.; YEGORKINA, L.I., red.; UVAROVA, A.F., tekhn.red.

[Collection of chassis designs for GAZ-51, GAZ-63, GAZ-63A automobiles; plans for assembling and constructing] Atlas konstruktsii shassi avtomobilei GAZ-51, GAZ-63, GAZ-63A; chertezhi uzlov i rabochie chertezhi detalei. Pod obshchei red. N.I.Borisova. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroi. lit-ry, 1957. 215 p. (MIRA 10:12)
(Motortrucks--Bodies)

USSR/Cultivated Plants - Technical, Oleaginous, Sachariferous. II-7

Abs Jour : Ref Zhur - Biol., No 9, 1958, 39455

Author : Ponomarenko, A.I., Il'chenko, G.Yu.
Inst : -
Title : Beet Planting Development in Regions With Large Irrigation Systems of the Southern Ukr SSR.

Orig Pub : Sakharnaya svekla, 1957, No 6, 20-22.

Abstract : No abstract.

Card 1/1

PODOLSKY, Vojtech; VIZVARY, Emil

On industrial application of pentachlorophenol and of sodium pentachlorophenolate and their determination in air. Pracovni lek.11 no.9:461-465 N '59.

1. Ustav hygieny prace a chorob z povolania v Bratislave, riaditel MUDr. Imrich Klucik.
(AIR POLLUTION chem.)
(PHENOLS chem.)

PODOL'SKIY, Ya.

Raise the work of labor sections to a higher level. Sots. trud 7 no.8:93-100 Ag '62. (MIRA 15:10)

1. Nachal'nik otdela truda i zarabotnoy platy Kirovskogo soveta narodnogo khozyaystva.

(Kirov Province--Wage payment systems)

PODOLSKIY, YA.YA.

Anti-wear and anti friction properties of mineral oils and other lubricants.

Report to be sumitted for the Sixth World Petroleum Congress, Frnakfurt, 16-26 June 63

PODOL'SKIY, Ye.A., inzh.; KHANOKH, P.M., inzh.

Device for pressure testing. Stroi. i dor. mash. 8 no.2:32-33 F '63. (MIRA 16:3)

(Oil hydraulic machinery--Testing)

PODOL'SKIY, Ye. M. (Aspirant)

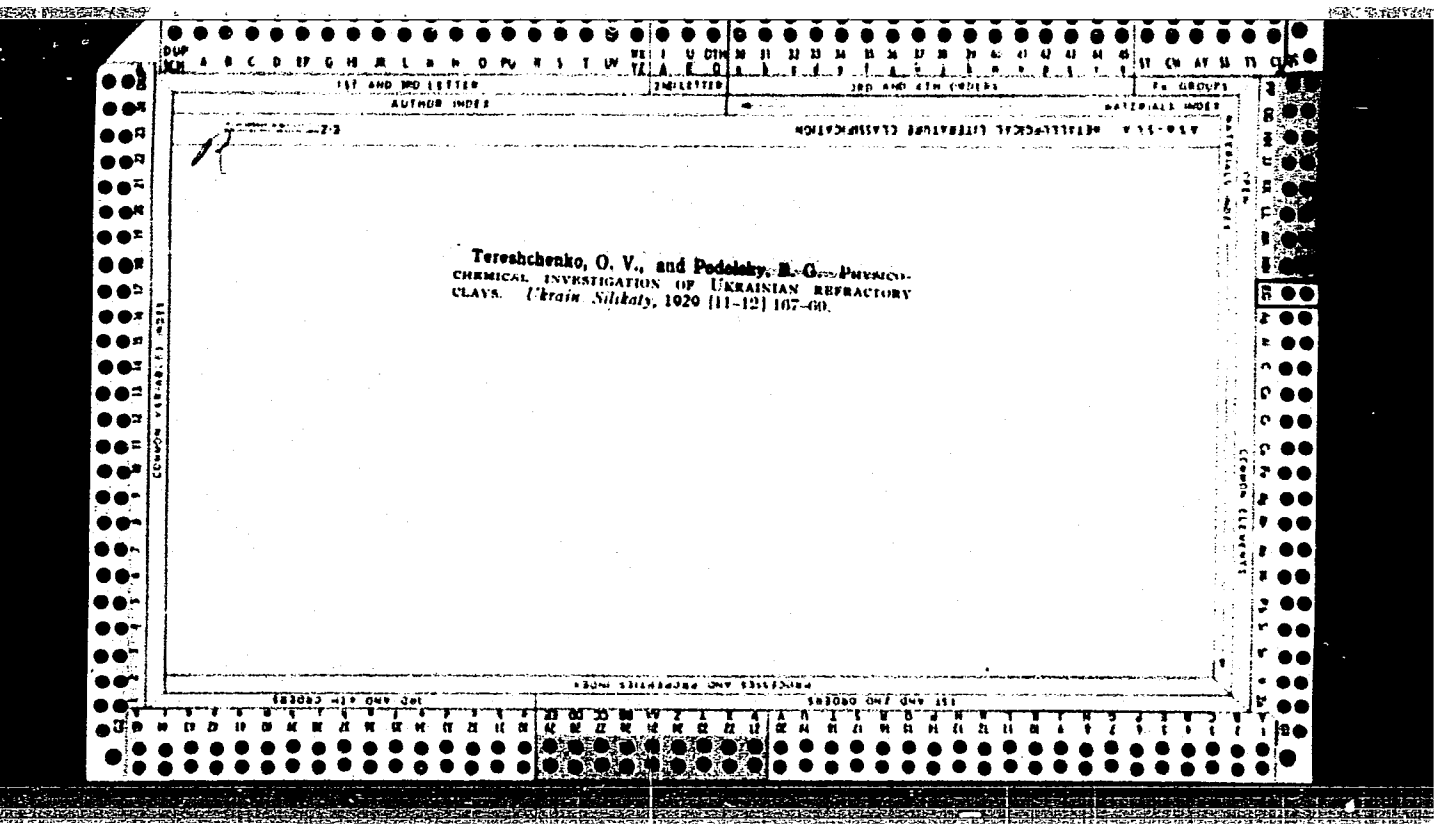
"The Utilization of Irrigation pump Stations as Output Regulators and Water-Storage Installations for Power Systems." Cand Tech Sci, Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov, 27 Dec 54. (VM, 14 Dec 54).

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

SO: SUM No. 556, 24 Jun 55

PODOL'SKIY, Ye.M., kand.tekhn.nauk; BABURIN, B.L., inzh.

Determining the capacity of flood-control reservoirs with a calculation for seasonal regulation of streamflow. Gidr. stroi. 30 no.6:30-35 Je '60. (MIRA 13:7)
(River--Regulation)



Tereshchenko, O. V., and Podolsky, B. G., Physico-Chemical Investigation of Ukrainian Refractory Clays. *Ukrain. Silikaty*, 1929 [11–12] 107–60.

L 31056-65 EWT(l)/EEC(t)
ACCESSION NR: AR5004867 S/0058/64/000/011/H031/H031

SOURCE: Ref. zh. Fizika, Abs. 11Zh194

AUTHOR: Podol'skiy, Ye. N.

TITLE: Diffraction of electromagnetic wave incident at an arbitrary angle on a plane metallic grating

CITED SOURCE: Uch. zap. Khar'kovsk. un-t, v. 138, 1964, Zap. Mekhan.-matem. fak. i Khar'kovsk. matem. o-va, v. 30, 116-125

TOPIC TAGS: electromagnetic wave diffraction, diffraction grating, Rayleigh method, oblique incidence, reflection coefficient, transmission coefficient

TRANSLATION: The behavior is investigated of the electromagnetic field obtained when a plane wave is scattered by a periodic grating made of metallic ribbons with period d and distance Δ between ribbons.

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L 31056-65
ACCESSION NR: AR5004867

The Rayleigh method is used, which leads, with account of the boundary conditions on the plane z = 0, to a complete system of equations for the determination of the unknown fields $e(m)^{\pm}$ and $h(m)^{\pm}$, where the plus sign pertains to the upper half space, the minus sign to the lower one, and m is an integer characterizing the direction of the scattered wave. The equations of the obtained system are not fully independent. After several linear transformations with respect to the unknown amplitudes of the scattered plane waves, the author obtains a system of independent linear algebraic equations for the separate components. The solution of this system reduces to the known solution of the Riemann-Hilbert problem. As a result, the amplitudes of the angular spectrum of the scattered fields are obtained in the form of a series, in which each term consists of quantities that depend on parameters α, β, and γ characterizing the direction from which the wave is incident, a parameter κ equal to the ratio of the grating period to the length of the incident wave, and a parameter u characterizing the ratio of the ribbon to slot

Card 2/3

L 31056-65
ACCESSION NR: AR5004867

width. For practical applications the series can be terminated with the N + 1-st term. The accuracy of the approximation depends little on α, β, γ, or u and strongly on κ. For $0 \leq \kappa \leq 0.2$, a satisfactory approximation is obtained with N = 0. Under certain conditions it coincides with the Lamb approximation. Plots are presented for the dependences of the reflection and [illegible] on the parameters of the problem. [illegible]

SUB CODE: EC, EM ENCL: 00

Card 3/3

14367
S/044/62/000/012/032/049
A060/A000

16.6500

AUTHORS: Podol'skiy, Ye.N., Pustynnikov, V.I.

TITLE: On the matrix method of investigating and solving a homogeneous system of ordinary linear differential equations with constant coefficients ~~on electronic~~ digital computers

PERIODICAL: Referativnyy zhurnal, Matematika, no. 12, 1962, 32, abstract 12V164 (Tr. Khar'kovsk. inzh.-stroit. in-ta, 1961, no. 17, 89 - 100)

TEXT: For a system of differential equations with constant coefficients $\frac{dX}{dz} = AX$, it is proposed to find the solution $X(Z) = e^{A(Z-z_0)} X(z_0)$ at a point $Z = z_0 + m\Delta z$, by iterating m times the vector $X(z_0)$ with the aid of the matrix $e^{A\Delta z}$. It is asserted (on the basis of experience) that on account of the great uniformity of the computational formulae this method is even more precise than the methods of Adams and of Runge-Kutta and, when using an electronic digital computer, it leads to the result more directly and quickly than the method connected with the full spectral expansion of the matrix A. Here, in order to

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On the matrix method of investigating and ....

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decrease the number of arithmetic operations and the errors connected with them it is proposed to find $e^{A(z-z_0)} = [e^{A\Delta z}]^m$ by computing successively $e^{2A\Delta z}$, $e^{4A\Delta z}$, $e^{8A\Delta z}$, ... To estimate the error of calculation of $e^{A\Delta z}$ the authors make use of the inequality

$$\left\| e^B - \sum_{j=0}^{k} \frac{B^j}{j!} \right\| \leq \frac{\|B\|^{k+1}}{(k+1)!} \cdot \frac{1}{1 - \frac{\|B\|}{k+2}},$$

which holds for $\|B\| < k + 2$, and the system of estimates of the errors of arithmetic operations of the computer "Ural-1", given in the article. It is noted that in the course of computing the successive powers of the matrix e^A it is possible to draw conclusions as to the stability in the first approximation, since if all the eigenvalues of the matrix A lie in the left half-plane then all the eigenvalues of the matrix e^A lie in the unit circle.

V.S. Shishov

[Abstracter's note: Complete translation]

Card 2/2

BONDARENKO, G. Ye., inzh; PODOL'SKIY, Yu.K., inzh.

Enamels as durable coatings. Vop.rud. transp. no.4:210-216 '60. (MIRA 14:3)

1. Luganskiy zavod im. A.Ya. Parkhomenko.
(Mining machinery) (Enamel and enameling)

Podol'skiy, Yu. K.

137-1957-12-23424

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 85 (USSR)

AUTHORS: Skul'skiy, M. K., Podol'skiy, Yu. K.

TITLE: Contamination of Steel by Non-metallic Inclusions Due to the Disintegration of the Coating of the sinkhead Extensions (Zagryazneniye stali nemetallicheskimi vklyucheniyami v resul'tate razrusheniya obmazki pribyl'nykh nadstavok)

PERIODICAL: V sb.: Primeneniye radioktivn. izotopov v chernoy metallurgii. Chelyabinsk, Knigoizdat, 1957, pp 151-157

ABSTRACT: Radioactive isotopes were employed in an investigation of the effect of the composition of the refractory material (RM) used as coating for the sinkhead extensions, and in a study of the effect of the conditions of coating on the contamination of steel by non-metallic inclusions (NMI). The RM used for coating had the following composition: 85 percent chamotte and 15 percent fire clay in a 20 percent solution of sulfide lye, as well as 60 percent of graphite, 20 percent chamotte and 20 percent fireproof clay in liquid glass, with an addition of 1.0-1.5 percent of 10 percent NaOH solution. The isotope Ca^{45} was introduced into the RM in such quantities as to produce 50 m curie per 1 kg.

Card 1/2

137-1957-12-23424

Contaminat'n of Steel by Non-metal. Inclusions (cont.)

71-ton ingots were cast and rolled into 120 mm-square stock, from which samples for the electrolytic extraction of NMI were taken at various points relative to the height and cross-section of the ingot. It was established that 11 out of the 14 cast ingots contained radioactive NMI, unevenly distributed throughout the volume of the ingot, which indicated contamination of steel by NMI due to the disintegration of the coating. Experiments using an RM coating of both kinds applied to sinkhead extensions at 50° and 100° showed that the steel is contaminated with NMI from the RM of the sinkhead extensions.

A.Sh.

1. Steel-Contamination 2. Refractory materials-Applications
3. Refractory materials-Inspection methods

Card 2/2

BONDARENKO, G. Ye., inzh.; PODOL'SKIY, Yu. K., inzh.

Effect of the thermal heating method on the durability of traction block chains. Vop. rud. transp. no.4:61-66 '60. (MIRA 14:3)

1. Luganskiy zavod im.A.Ya.Parkhomenko.
(Chains)

PODOL'SKIY, Yu. V.

Linear parageneses of the main rock-forming elements of rocks in spilite-keratophyre formations. Dokl. AN SSSR 152 no. 4: 975-978 O '63. (MIRA 16:11)

1. Predstavleno akademikom D.S. Korzhinskim.

PODOL'SKIY, Yu.V.

Linear paragenesis of the main rock-forming elements of alkaline rocks of the central part of the Kola Peninsula. Dokl. AN SSSR 146 no.2:443-446 S '62. (MIRA 15:9)

1. Predstavleno akademikom D.S. Korzhinskim.
(Kola Peninsula—Paragenesis)

PODOL'SKIY, Yu.Yu. (Moskva); KOREPOVA, I.V. (Moskva); VINOGRADOV, G.V. (Moskva)

Conditions and kinds of seizing caused by the friction of hardened steel in hydrocarbon lubricating media. Mashinovedenie no.5:109-114 '65. (MIRA 18:9)

L 27347-66 EWT(m)/EWP(w)/T/EWP(j)/EWP(t) IJP(c) JD/DJ/GS/RM/JH
ACC NR: AT6008940 (A) SOURCE CODE: UR/0000/65/000/000/0015/0025

AUTHORS: Vinogradov, G. V.; Podol'skiy, Yu. Ya.; Mustafayev, V. A.

ORG: none

TITLE: New aspects in the problems of friction between plastics and metals

SOURCE: Moscow. Institut mashinovedeniya. Plastmassy v podshipnikakh skol'zheniya; issledovaniya, opyt primeneniya (Plastics in friction bearings; research and experiment in application). Moscow, Izd-vo Nauka, 1965, 15-25

TOPIC TAGS: friction gage, friction coefficient, plastic, aluminum, copper, steel, iron, polymer, material testing/ Tr-6 friction gage

ABSTRACT: The effect of metallic oxide and salts on the friction behavior of polymers on metals is investigated. It is contended that in certain circumstances metal oxides and salts can form a film between friction pairs of metal and polymer. This film can seriously alter the frictional characteristics of the pair, particularly in conditions of heavy loading and/or high velocity. Tests were conducted on a Tr-6 friction gage according to a method described earlier by V. A. Mustafayev, G. B. Vinogradov, and Yu. Ya. Podol'skiy (Iznos i treniye plastikov pri

Card 1/3

kontaktirovanii ikh s metallami - sb. Treniye i iznos metallov i plastmass (Treniye i iznos v mashinakh, vyp. 19), Izd-vo Nauka, 1964). Friction contact was made between a metallic ring and a plastic disk. Plastic materials tested included textolite, polypropylene, and polytetrafluorethylene. Metallic specimens were prepared from copper, aluminum, Armco steel, tempered steel, and pig iron. Tests were performed with and without lubrication, in air and in vacuum, with varying types of loading. Measurements of the change of friction coefficient were made for these varying conditions. Results are plotted in the form shown in Fig. 1.

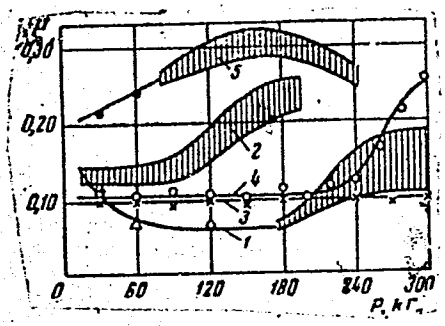

Fig. 1. The effect of loading on the friction of various metals on textolite without lubrication in air. 1 - copper; 2 - aluminum; 3 - Armco steel; 4 - steel; 5 - pig iron.

L 27347-66
ACC NR: AT6008940 O

It was determined that the most important factor in heavy friction loads of polymers on metals is the change in effective contact area between the rubbing pairs. Orig. art. has: 8 figures.

SUB CODE: 11/ SUBM DATE: 31Jul65/ ORIG REF: 005

Card 3/3 PB

L 15042-66 EWT(m)/EWP(j)/T/ETC(m)-6 WW/DJ/RM SOURCE CODE: UR/0374/65/000/005/

ACC NR: AP6003945

AUTHOR: Mustafayev, V. A. (Moskva); Podol'skiy, Yu. Ya. (Moskva); Vinogradov, G. V. (Moskva)

ORG: none

TITLE: Cold flowing and melting of plastics under heavy friction conditions

SOURCE: Mekhanika polimerov, no. 5, 1965, 95-100

TOPIC TAGS: plastic, crystalline polymer, polymide, polytetrafluoroethylene, friction coefficient, melting point

ABSTRACT: A study of friction between crystalline polymers under the load of tens and hundreds of kg/cm^2, carried out with considerable mutual coverage of the friction surfaces and at sliding speeds varied over a range of tens and thousands of times has revealed the effect on their behavior of cold flow and of surface melting. The friction toward the load dependence at low sliding speeds has a pronounced maximum. It is suggested that at constant sliding speed, the area of actual contact between the friction surfaces increases with the increase of loads. This is accompanied by the growth of the friction coefficient. At sufficiently high loads, when the ratio between the area of actual contact and the nominal contact area becomes high, cold flow sets in and is accompanied by an orientation effect. This lowers the friction coefficient. It has been shown by direct experiment that the friction coefficient may

UDC: 678:531.44

Card 1/2

L 1

ACC NR: AP6003945

change from 2 to 3 fold depending on the direction of the friction with respect to the orientation of the crystals in the surface layers of the polymer sample. At high sliding speeds, an increase in the load increases the heat generated during the friction, which in its turn, softens the surface layers of the polymer. The result is an increase in the area of actual contact and a rise in the friction coefficient. Under heavy friction conditions where surface melting occurs on the samples, the friction remains constant with growing loads. The fact that a surface layer of melt forms is evident from the ease with which the surface layer separates from the sample on rapid cooling. No anisotropic surface structures develop during melting. Therefore, training of crystalline polymers at high pressures and speeds has no substantial effect on their friction. Orig. art. has: 6 figures. [Based on author's abstract].

SUB CODE: 11 SUBM DATE: 25Mar65/ ORIG REF: 008/ OTH REF: 001/

Card 2/2

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510009-7"

L 1559-66 EWT(d)/EWT(m)/EWP(w)/EPF(c)/EWP(v)/EWP(j)/T/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l) BM/JD/DJ/GS/RM

ACCESSION NR: AT5022667 UR/0000/65/000/000/0092/0094

AUTHORS: Mustafayev, V. A.; Podol'skiy, Yu. Ya.

TITLE: A comparative investigation of friction of thermoplastics at broadly changing basic parameters of friction

SOURCE: AN SSSR. Nauchnyy sovet po treniyu i smazkam. Teoriya treniya i iznosa (Theory of friction and wear). Moscow, Izd-vo Nauka, 1965, 92-94

TOPIC TAGS: plastic, polymer, thermoplastic, friction, internal friction, external friction, metal to plastic friction, TP 6 tribometer, TP 7 tribometer

ABSTRACT: Experiments were performed to ascertain the influence of melting and flow of various thermoplastic polymers on the character of their external friction against steel. Friction of a hemisphere against a plane was studied in tribometer TP-7, of a ring against a disk in tribometer TP-6. A graphic record of the changing coefficient of friction under a load of 10 g, at the velocity of 0.01 cm/sec, and at temperatures changing from 40 to 180C is presented. The coefficient was found to rise steeply at the melting temperatures for the crystalline polymers, less steeply for the amorphous and weakly crystallized polymers. It was noted that at the melting temperatures the external friction of the polymers

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L 1559-66

ACCESSION NR: AT5022667

passed into the internal friction and that at these temperatures the amount of load affected the coefficient only slightly. The increase of the rubbing velocity increased the relaxation processes in the polymer melt. The dependence of the frictional characteristics on the velocity was studied at the load range of 0-180 kg and at initial temperatures of 20C and at 50C. The range of velocities from 44 cm/sec to $44 \cdot 10^{-5}$ cm/sec was investigated. Here, too, passing from the external to the internal friction in the melting layer of the polymer was noted. The authors state that the change from the external to the internal friction may be produced by altering the thermomechanical properties of the polymers and also by varying the friction parameters. Orig. art. has: 2 graphs.

ASSOCIATION: Nauchnyy sovet po treniyu i smazkam, AN SSSR (Scientific Committee on Friction and Lubrication, AN SSSR) 44,55

SUBMITTED: 18May65 ENCL: 00 SUB CODE: IE

NO REF SOV: 000 OTHER: 000

Card 2/2

L 1432-66 EWT(m)/EPF(c)/EWP(j)/T RM

ACCESSION NR: AP5021891 UR/0020/65/163/006/1419/1422

AUTHORS: Vinogradov, G. V.; Mustafayev, V. A.; Podol'skiy, Yu. Ye.; Malinskiy, Yu. M.

TITLE: Transition of external friction to viscous flow during surface melting of polymers

SOURCE: AN SSSR. Doklady, v. 163, no. 6, 1965, 1419-1422

TOPIC TAGS: polymer, friction, viscosity, viscous flow, polystyrene, polyethylene, resin

ABSTRACT: A tribometer was designed by means of which the effect of temperature on the surface friction of polymers was studied. A schematic of the tribometer is shown in Fig. 1 on the Enclosure. Three different types of polymers involved in this study were: amorphous, crystalline, and radiationally cross-linked polyethylene. The experimental results are shown graphically; typical results for amorphous polymer are given in Fig. 2 on the Enclosure. The form of the experimental curves is explained in terms of a relaxation mechanism. Orig. art. has: 4 graphs.

ASSOCIATION: Institut neftekhimicheskogo sinteza, Akademii nauk SSSR (Institute

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L 11432-66

ACCESSION NR: AP5021891

6

44,55

for Petrochemical Synthesis, Academy of Sciences SSSR); Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-Chemical Institute)

44,55

SUBMITTED: 04Feb65 ENCL: 02 SUB CODE: OC

NO REF SOV: 009 OTHER: 002

Card 2/4

L 1432-66

ACCESSION NR: AP5021891

ENCLOSURE: 01

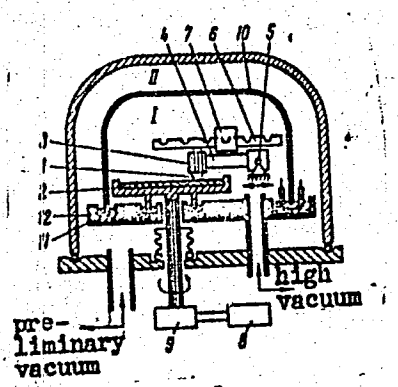

Fig. 1.

Principal schematic of the tribometer Tr-7.

1- semispherical slider; 2- disk; 3- chuck; 4- dynamometric plate; 5- hinged support; 6- lever; 7- load; 8- electric motor; 9- reducer; 10- glass cover; 11- sealing liquid; 12- plate

Card 3/4

L 1432-66

ACCESSION NR: AP5021891

ENCLOSURE: 02

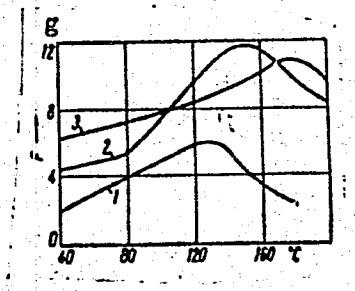

Fig. 2.
Effect of temperature on friction between steel and amorphous polymers (load 10 g, rate of sliding 5 x 10^{-3} cm/sec).
1- polyvinylacetate; 2- polystyrene; 3- polymethylmethacrylate

Card 4/4 DP

L 45226-65 EWT(d)/EWT(m)/EPF(c)/EWP(w)/EWA(d)/EWP(v)/EWP(j)/T/EWP(t)/EWP(k)/
EWP(h)/EWP(z)/EWP(b)/EWP(l) Pc-4/Pf-4/Pr-4 MJW/JD/RM
ACCESSION NR: AT5010240 UR/2711/64/000/019/0111/0126 50

B+1

AUTHOR: Mustafayev, V. A.; Vinogradov, G. V.; Podol'skiy, Yu. Ya.

TITLE: Wear and friction of plastics in contact with metals

15

SOURCE: AN SSSR. Institut mashinovedeniya. Treniye i iznos v mashinakh, no. 19, 1964. Iznos i treniye metallov i plastmass (Wear and friction of metals and plastics), 111-126

TOPIC TAGS: plastic wear, plastic friction, plastic metal contact, friction couple, armco iron, steel, textolite, lubricant effectiveness, metal oxidation, glycerol

ABSTRACT: The purpose of this work was to elucidate the part played by oxygen [illegible] plastics. Ring specimens of armco iron (HRC = 10) [illegible] in contact with textolite, low- [illegible] polytetrafluoro- [illegible] lubricants, and the tests were [illegible] It was found that a decrease in the rate of oxidation processes did not [illegible] In the case of friction of hardened steel and soft iron against soft plastics.

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L 45226-65
ACCESSION NR: AT5010240

textolite coupled with armco iron, the character of friction is determined by the transfer of iron onto the surface of the plastic, and hence, by the marked dependence of the friction process on the oxidizing activity of the gaseous medium. The effectiveness of the action of liquid lubricants is determined not only by the composition and properties of the lubricant, but also by the nature of the plastic. This action may increase or decrease with an increase in specific loads. The decrease in the coefficient of friction of glycerol, observed in the study of many plastics, is undoubtedly due to an increase in the chemical activity of glycerol when severe contact-friction conditions are employed. Orig. art. has: 9 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MT, FM

NO REF SOV: 026 OTHER: 009

Card 2/2

L 45227-65 EWT(m)/EWP(w)/EPF(c)/EWA(d)/EPR/EWP(j)/T/EWP(t)/EWP(b)/EWA(c)
Pc-4/Pr-4/Ps-4 RPL JD/WW/EM

ACCESSION NR: AT5010241 UR/2711/64/000/019/0127/0137 43 40 B+1

AUTHOR: Vinogradov, G. V.; Podol'skiy, Yu. Ya.; Mustafayev, V. A.

TITLE: Wear resistance of steel in the presence of polymer powders

SOURCE: AN SSSR, Institut mashinovedeniya. Treniye i iznos v mashinakh, no. 19, 1964, Iznos i treniye metallov i plastmass (Wear and friction of metals and plastics), 127-137

TOPIC TAGS: steel friction, steel wear resistance, powdered polymer, polymer friction, polymer lubricant, metal surface, polymer rheological property

ABSTRACT: The behavior of powders of the following polymers was studied in friction tests on steel balls: polymethyl methacrylate, polypropylene, polyethylene (with various contents of CH_3 groups), polyvinyl butyral, polystyrene, polyformaldehyde, polytetrafluoroethylene, polyvinyl chloride, polyvinylidene chloride, polyvinyldimethylphenylsilane, polyvinylmethylphenylsilane, and polyallyltrimethylsilane. Under severe friction conditions (high loads and slip velocities), the antifriction and antiwear properties of the powdered polymers are determined by a combination of the rheological properties of the polymers and their capacity to modify steel surfaces chemically. Remarkable antiwear properties over the

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ACCESSION NR: AT5010241

entire range of loads studied were displayed by powders of polypropylene and polyethylene with a maximum degree of branching, and also by polytetrafluoroethylene. The optimum antiwear properties are exhibited by polymers which are sufficiently stable at low temperatures, but are capable of performing the functions of oxygen suppliers and other agents that modify the metal surfaces at high temperatures. Orig. art. has: 7 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MT, MM

NO REF SOV: 007 OTHER: 001

Card 2/2

VINOGRADOV, G.V.; ARKHAROVA, V.V.; PODOL'SKIY, Yu.Ya.

Antiwear and antifriction properties of alkylated aromatic hydrocarbons. Izv. vys. ucheb. zav.; neft' i gaz 4 no.1:61-65 '61. (MIRA 15:5)

1. Voyennaya akademiya bronetankovykh voysk imeni Stalina.
(Hydrocarbons)

VINOGRADOV, G. V.; KOREPOVA, I. V.; PODOLSKIY, Yu. Ya.; PAVLOVSKAYA, N. T.

"Effect of oxidation on boundary friction of steel in hydrocarbon medial and critical friction duties under which cold and hot seizure (or welding) develop."

report presented at the Intl Lubrication Conf, Washington, D.C., 13-16 Oct 64.

Inst of Petrochemical Synthesis, AS USSR, Moscow.

VINOGRADOV, G.V.; PODOL'SKIY, Yu.Ya.; SHEPELEVA, Ye.S.

Study of petroleum oil additives for controlling steel seizing.
Izv. vys. ucheb. zav.; neft' i gaz 4 no.4:63-67 '61.
(MIRA 15:5)

1. Akademiya bronetankovykh voysk imeni I.V.Stalina.
(Mineral oils--Additives)

VINOGRADOV, G.V.; LYAN GO-LIN' [Liang Kuo-lin]; PODOL'SKIY, Yu.Ya.; SANIN, P.I.; SHEPELEVA, Ye.S.

Peculiarities of the joint action of air (molecular oxygen) and thio-, phosphorus- and chloroorganic compounds as additives to mineral oils of different viscosities. Neftekhimia 1 no.3:433-443 My-Je '61. (MIRA 16:11)

1. Institut neftekhimicheskogo sinteza AN SSSR.

BEZBORODʹKO, M.D.; SHABAROV, L.I.; PODOLʹSKIY, Yu.Ya.; VINOGRADOV, G.V.

Instrument for investigating the wear resistance and antifriction properties of plastics. Zav.lab. no.1:104-106 '61. (MIRA 14:3)
(Plastics--Testing)

S/081/61/000/014/025/030
B117/B203

AUTHOR: Podol'skiy, Yu. Ya.

TITLE: Machine for testing the antiwear and antifriction properties of lubricants at high contact stresses and gliding speeds

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 14, 1961, 542, abstract 14M241. (Tr. 3-y Vses. konferentsii po treniyu i iznosu v mashinakh, v. 3, M., AN SSSR, 1960, 227 - 234)

TEXT: A new variant of a four-ball friction machine has been designed. It combines all advantages of such a machine with the possibility of realizing high gliding speeds (up to 10 - 15 m/sec). A schematic drawing of the machine and its principle of operation are given. [Abstracter's note: Complete translation.]

Card 1/1

S/883/62/000/000/008/020
E194/E155

AUTHORS: Bezborod'ko, M.D., Vinogradov, G.V., Podol'skiy, Yu.Ya., and Shabarov, L.I.

TITLE: Four-ball friction machines and modifications of them for studying the anti-frictional properties and wear resistance of plastics

SOURCE: Metody ispytaniya na iznashivaniye; trudy soveshchaniya, sostoyavshegosya 7-10 dek. 1960. Ed. by M.M. Khrushchov. Moscow, Izd-vo AN SSSR, 1962, 81-88

TEXT: Plastic parts are now being extensively used under conditions of sliding with a wide range of loads and speeds. They differ from metals in that their thermal conductivity is low, in that they tend to be of uniform structure throughout, and in that lubricant additives may not act on them in the same way as they do on metals. The sliding properties of plastics should be studied on various materials and with various kinds of lubrication. Four-ball machines can be used, or fixtures adapted for testing two hollow cylindrical specimens in edge contact which can be fitted either in a four-ball machine or in a normal drilling machine. A detailed

Card 1/2

Four-ball friction machines and ... S/883/62/000/000/008/020
E194/E155

description is given of the fixture for making friction tests between two hollow cylinders. The test specimen being insulated from the machine shaft and from the frame, it is possible to study electrical effects in friction, or the influence of electric current on friction between plastic and metal. The frictional torque is measured by a strain gauge arrangement. In testing, it is important to ensure that the quality of surface finish and contacting of the specimens throughout the surface is uniform. Surface finish is examined with a binocular microscope and plastic specimens may be polished by running-in against a lubricated metal specimen. With the equipment described it was possible to test thermoplastic and thermosetting materials, including reinforced plastics at specific pressures in the range 2.5 to 300 kg/cm^2 for flat specimens and up to 8000 kg/cm^2 in the case of plastic balls at sliding speeds ranging from 0.1 to 20 m/sec. The frictional systems could be operated at temperatures up to 200 °C by circulating a heat-transfer medium. Test results obtained with various combinations of plastics, metals and lubricants are described and it is shown that the anti-frictional properties and wear-resistance of plastics sliding on metals depend very greatly on the nature of the lubricant.
Card 2/2 There are 6 figures.

S/883/62/000/000/015/020
E194/E155

AUTHORS: Vinogradov, G.V., Podol'skiy, Yu.Ya., and Bezborod'ko, M.D.

TITLE: The use of point-contact friction machines to assess wear of metals and the wear- and friction-reducing properties of lubricants

SOURCE: Metody ispytaniya na iznashivaniye; trudy soveshchaniya, sostoyavshegosya 7-10 dek. 1960. Ed. by M.M. Khrushchov. Moscow, Izd-vo AN SSSR, 1962. 152-163

TEXT: Point-contact friction machines such as four-ball, two-ball and two-cylinder types are useful for fundamental work on friction and wear, besides their more usual practical applications. Accordingly, the Institut neftekhimicheskogo sinteza (Institute of Petrochemical Synthesis) has developed an integrated series of such machines and this article reviews their published descriptions and the principal results which have been obtained with them. Machine MT-5 (MT-5) is a two-ball machine; the rest can use either four balls or two cylinders. Machine MT-2 is used at medium speeds and moderately high temperatures. The upper frictional

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element is driven at speeds in the range 50 - 1200 r.p.m. by a hydraulic motor, and loads up to 500 kg are applied hydraulically to the lower elements. The frictional elements can be thermostatted or operated in a controlled atmosphere. Machine MT-3 is used for high speeds (up to 20 000 r.p.m.). A lever loading device is used at low speeds because of its sensitivity, and hydraulic loading at higher speeds to overcome vibration difficulties in the lever system. Lubricant can be circulated during test. Machine MT-4 is used for tests in vacuo or in atmospheres of special gases in the speed range up to 3000 r.p.m. with temperatures up to 500 °C. The brake is in the vacuum chamber and torque is measured by strain gauges. Two-ball machine MT-5 in which both balls can be driven, the lower one at a low speed, is used when it is required to produce sufficient wear material for analysis. It offers a wide range of sliding speeds which is useful in studies of cold welding and other methods of working materials under pressure. Vacuum and special gas atmospheres are also possible with machine MT-6, which differs from MT-4 in that very low sliding speeds and higher temperatures can be used. The test temperature can be varied during the test

according to a pre-set programme. The following conclusions have been drawn from published work carried out in this series of machines. Under severe conditions the lubricating properties of refined naphthenic oils depend mainly on viscosity. The presence of oxygen or oxidation products greatly improves performance under boundary lubrication conditions and can help to prevent seizure. An important function of lubricants is to deliver oxidants to the friction zone, and this is why seizure may be more catastrophic in oil baths than with thin film lubrication. Studies have been made of the modes of action and limitations of sulphur-, chlorine- and phosphorus-containing additives, of changes in the metal surfaces, of the effect of additives in modifying wear debris, and of the effect of soft and hard particles suspended in the oil. Studies have been made of various salts as lubricants. The mechanism of abrasive wear has been studied. There are 5 figures and 1 table.

Card 3/3

BEZBOROD'KO, M.D.; VINOGRADOV, G.V.; KRIVOSHEIN, G.S.; LYAN GO-LIN' [Liang Kuo-lin]; PODOL'SKIY, Yu.Ya.

Investigating wear-preventing properties of lubricants under rolling-friction conditions. Tren.i izn.mash. no.15:420-431 '62. (MIRA 15:4)

(Lubrication and lubricants—Testing)

15-6600 1583, 2209

22282
S/152/61/000/004/003/009
B126/B219

AUTHORS: Vinogradov, G. V., Podol'skiy, Yu. Ya., Shepeleva, Ye. S.

TITLE: Examination of mineral oil additives as seizing protectors for steel

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, no. 4, 1961, 63-67

TEXT: In this article, a new method of determining the effect of additives on seizing and welding through friction of metals is described. This method is based on a continuous change in the sliding speed over a wide range. The tests were carried out on a four-sphere device with automatic recording of the friction coefficient. The speed variation of the upper sphere from 0 to $19.5 \cdot 10^3$ rpm was accomplished by a specially constructed appliance. The spheres had 12.7 mm in diameter and were made of ШХ6 (ShKh6) steel hardened to 62 R_c; all the experiments were carried out at 20°C. The naphthenic paraffin fraction of the oil МС-14 (MS-14) was used as a base oil, with the following additives: 1) 0.15 mole/l dibenzyldisulfide, 2) 0.05 mole/l 1-trichloro-5-methylpentane, 3) 0.05mole/l

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Examination of mineral...

dibutylester of methylphosphinic acid, 4) 0.05 mole/l tri-(trichloroethyl) phosphite. With naphthenic paraffin in oil, seizing occurred at a considerably higher speed and at low load; an increase of the load at relatively low speeds initiated seizing. When dibenzyldisulfide was added, seizing occurred at sliding speeds that are between those at which seizing is initiated and those at which repeated and very intense seizing occurs with naphthenic paraffin oil. A trichloromethyl additive had a slight effect at low load and became more efficient on increase of the latter; the friction coefficient remained low up to the limiting speed; a further increase in load reduced the effect of the additive. The ester of methylphosphinic acid affects the seizing loads very much. Organic phosphorus compounds are very efficient and have the ability of modifying the friction surfaces; the addition of chlorine derivatives considerably increases the already high critical values of these additives. These results show that the new method facilitates the examination of the efficiency of additives. There are 4 figures.

ASSOCIATION: Akademiya bronetankovykh voysk im. I. V. Stalina (Academy of Armored Troops imeni I. V. Stalin)

SUBMITTED: October 1, 1960

Card 2/2

88831

5.3300

S/152/61/000/001/001/007
B023/B064

AUTHORS: Vinogradov, G. V., Arkharova, V. V., Podol'skiy, Yu. Ya.

TITLE: Wear resistance and antifriction properties of alkylated aromatic hydrocarbons

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, no. 1, 1961, 61-65

TEXT: In continuation of their previous papers and published data, respectively (Refs. 1-3 and 10-13), the authors studied the antiwear- and antifriction properties of bicyclic aromatic hydrocarbons. A mixture of isomers of triisoamyl naphthalene was chosen as hydrocarbon. The investigations were carried out on a friction test machine with four balls which was described in the paper of Ref. 15. The balls consisted of ШХ6 (ShKh6) steel with a diameter of 12.7 mm. The gliding velocity was 23 cm/sec, the temperature 100°C. The experiments were conducted in air and in Ar- and O_2 atmosphere. Dibenzyl disulfide was used as antiwear admixture in a concentration of 0.1 mole/l. The curves of wear as a function of load showed two stages for triisoamyl naphthalene in all gas media applied. A table

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shows the values of the lower critical loads P_K' (on the lower stage) and the higher (P_K'' on the upper stage) at which a more or less jumpwise increase of wear occurs due to an intensive gripping. In the authors' opinion the increase of the oxidizing activity of the gas medium leads to the increase of P', to the increase of wear at $P < P'$, and to a considerable reduction of wear at $P > P_K$. The experiments with the dibenzyl sulfide solution showed, in agreement with previous publications, that the disulfide sulfur introduced into the hydrocarbon has the same effect as O_2. At lower loads, the presence of sulfur, like the presence of O_2, leads to an increase, but at high loads to a reduction of wear. Reduction is especially great when O_2 is intensively introduced into the zones of friction. The increase in the oxidizing activity of the gas medium leads to a reduction of the gripping process. The introduction of the sulfurous admixture which is active toward steel, eliminates vehement gripping. At experiments made in O_2 atmosphere, the values of the friction coefficients at the end of the 1-minute experiments did not depend on the loads perpendicular to the axis. The curves p(P) for solutions of dibenzyl sulfide show, like the curves wear - load and the friction diagrams, that sulfur,

at friction under high specific loads acts analogously to O_2, and that each of these agents increases the effect of the other. In conclusion, the authors summarize as follows: The antiwear- and antifriction properties of the alkylated bicyclic hydrocarbons at difficult conditions of friction do not differ qualitatively from what is known about naphthene-paraffine and low-sulfuric aromatic fractions of mineral oils. These properties depend on the intensity of the course of conjugate oxidation reactions of hydrocarbon lubricating media and steel. Molecular oxygen is an active antiaggressive admixture. Its effect increases the effect of disulfide sulfur and vice versa. K. I. Klimov and G. I. Kichkin are mentioned. There are 4 figures, 1 table, and 15 Soviet-bloc references.

ASSOCIATION: Voyennaya akademiya bronetankovykh voysk im. I. V. Stalina (Military Academy of Armored Troops imeni I. V. Stalin)

SUBMITTED: July 25, 1960

88831

Wear resistance and antifriction... S/152/61/000/001/001/007
B023/B064

Legend to the Table: 1: denotation of the product; 2: Argon; 3: Air; 4: Oxygen; 5: Triisoamyl naphthalene; 6: Dto. + dibenzyl disulfide.

1 Наименование продукта	2 Аргон				3 Воздух				4 Кислород			
	$P'_к$	p'	$P''_к$	p''	$P'_к$	p'	$P''_к$	p''	$P'_к$	p'	$P''_к$	p''
5 Тризоамилнафталин	20	120	90	30	45	127	105	32	60	120	135	70
6 То же+дибензилдисульфид	—	—	—	—	30	130	—	—	60	100	—	—

Card 4/4

1.9600

S/032/61/027/001/030/037
B017/B054

AUTHORS: Bezborod'ko, M. D., Shabarov, L. I., Podol'skiy, Yu. Ya., and Vinogradov, G. V.

TITLE: Device for Testing the Wear Resistance and Antifriction Properties of Plastic Materials

PERIODICAL: Zavodskaya laboratoriya, 1961, Vol. 27, No. 1, pp. 104-106

TEXT: A device was developed for testing the wear resistance and antifriction properties of plastic materials. The plastic material is applied to one of the end surfaces of a thin-walled cylindrical tube, and its friction is determined with a metal surface. The moment of friction is determined tensometrically. The resistance of caprone and Fluoroplast-4 to wear by 40 X (40Kh) steel was established by determining the friction coefficients. Results showed that the friction coefficients increased with time, then slowly dropped, and finally remained constant. This course of change can be explained by an increase in temperature of the contact surfaces. There are 3 figures and 3 Soviet references.

Card 1/1

VINOGRADOV, G.V. (Moskva); MUSTAFAYEV, V.A. (Moskva); PODOL'SKIY, Yu.Ya. (Moskva)

Wear and friction of steel in the presence of polymer powders. Izv.AN SSSR. Mekh.i mashinostr. no.1:202-205 Ja-F '64. (MIRA 17:4)

FODOL'SKIY, Ya. Ya.

PHASE I BOOK EXPLOITATION SOV/5055

Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh. 3d, 1958.

Gidrodinamicheskaya teoriya smazki. Opory skol'zheniya. Sbornik i smazochnyye materialy (Hydrodynamic Theory of Lubrication. Slip Bearings. Lubrication and Lubricant Materials) Moscow, Izd-vo AN SSSR, 1959. 422 p. Errata slip inserted. 3,800 copies printed. (Series: Its: Trudy, v. 3)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya.

Resp. Eds. for the Section "Hydrodynamic Theory of Lubrication and Slip Bearings": Ye. M. Gut'yar, Professor, Doctor of Technical Sciences, and A. K. D'yachkov, Professor, Doctor of Technical Sciences; Resp. Ed. for the Section "Lubrication and Lubricant Materials": O. V. Vinogradov, Professor, Doctor of Chemical Sciences; Ed. of Publishing House: M. Ya. Kiebanov; Tech. Ed.: O. M. Gus'kova.

PURPOSE: This collection of articles is intended for practicing engineers and research scientists.

COVERAGE: The collection, published by the Institut mashinovedeniya AN SSSR (Institute of Science of Machines, Academy of Sciences USSR) contains papers presented at the III Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh (Third All-Union Conference on Friction and Wear in Machines) which was held April 9-15, 1958. Problems discussed were in Hydrodynamic Theory (Cont.) SOV/5055

Podol'skiy, Ya. Ya. Machine for Testing Wear-Resistant and Antifriction Properties of Lubricant Materials for High Contact Stresses and Sliding Speeds 227

Samin, P. I., Ya. S. Shepeleva, A. V. Ul'yanova, and B. V. Kleymenov. Effect of Synthetic Additives to Lubricating Oils on Frictional Wear 234

Tsurkan, I. G. Application of the Results of Wear-Resistance Tests of Lubricating Oils on Machines With Point Contact of the Friction Surfaces 239

Volumetric Mechanical Properties of Lubricant Materials

Volkovyskiy, D. S. (deceased), P. I. Kazhdan, and G. D. Kondrat'yeva. Viscous Properties of Oil Mixtures of Different Chemical Character and of Solid Lubricants Obtained by Thickening 248

Volarovich, M. P., and Y. L. Valdman. Investigation of the Viscous Properties of Lubricating Oils with High-Polymer Additives at Low Temperatures 256

Kuskov, M. M., L. A. Konovalova, Ye. A. Prokof'yeva, and V. I. Sidorenko. Effect of Temperature and Pressure on the Viscosity of Mixtures of Mineral Oils and Silico-organic Liquids 262

Mashchaninov, S. M. Practical Significance of Some Laboratory Parameters of the Mechanical Properties of Plastic Lubricants 270

Pavlov, V. F. Effects of Heat on the Flow of Plastic Lubricants 277

Sinitsyn, V. V. Boundary-Layer Sliding and Internal Friction of Plastic Lubricants 284

Card 6/17

PODOL'SKIY, Yuriy Yakovlevich; SUVOROV, I.V., red.; ZHUKOVA, Ye.G., tekhn. red.

[Accounting and the analysis of the work of industrial equipment] Uchet i analiz raboty proizvodstvennogo oborudovaniia. Leningrad, Izd-vo Leningr. univ., 1962. 61 p. (MIRA 16:3)
(Industrial equipment) (Industrial statistics)

PODOLSKY, O.

"Control of heavy machine tools by record on a magnetophone tape."

AUTOMATISACE, Praha, Czechoslovakia, Vol. 2, no. 5, May 1959

Monthly List of East European Accessions Index (EEAI), LC, Vol. 8, No. 8, August 1959

Unclassified

PODOLSKY, Oldrich, inz.

Step motors and their use. Automatizace 6 no.6:137-142 Je '63.

1. Zavody V.I. Lenina Plzen.

BEZRUKOV, B.A., inzh.; PODOL'TSEV, L.N., inzh.; SUVOROV, B.V., inzh.

Sinking reinforced concrete shells with a diameter of 4 m. into fine-grained sand. Transp.stroi. 11 no.4:19-21 Ap '61. (MIRA 14:5)
(Archangel—Bridges—Foundations and piers)

PODOLYACHIN, P.I.

Devices for checking cam profiles. Mashinostroitel' no.9:24-25 S '60. (MIRA 13:9)
(Cams--Testing)

S/117/60/000/009/008/015
A004/A001

AUTHOR: Podolyachin, P. I.

TITLE: Devices for the Checking of Cam Profiles

PERIODICAL: Mashinostroitel', 1960, No. 9, pp. 24-25

TEXT: The Kolomenskiy teplovosostroitel'nyy zavod (Kolomna Diesel Locomotive Plant) has developed and introduced a device which makes it possible to check the cam profile with the required accuracy. The author gives a detailed description of design and operation of the device, describes the manufacture of the necessary master template which is made according to the cam profile, and presents designs and mode of operation of the special devices for the machining and checking of accuracy of the master templates. There are 3 figures.

Card 1/1

AUTHOR: Podolyak, A.A., Engineer 100-7-10/11

TITLE: The Use of Mobile Compressors in the Building Industry (Iz opyta ekspluatatsii stroitel'nykh peredvizhnykh kompressornykh stantsiy)

PERIODICAL: Mekhanizatsiya Stroitel'stva, 1957, Vol.14, No.7, pp. 25 - 26 (USSR).

ABSTRACT: The compressors, ЗИФ/ВКС-5, ВКС-51 and ЗИФ/55 are used in the building industry. The compressor ЗИФ-5 is driven by a 45 kW electromotor (Figs. 1 and 2). A rheostat is fitted to the compressor (Fig.3) to minimise the impact of the initial current which increases 4 - 5 times at the start. However, this complicated rheostat was proved to be unsatisfactory unless special wiring is used. Building firms usually refuse to use the compressors ЗИФ/ВКС-5 or ВКС-51 with the electromotor МАК-92/5. The moment of twisting is transferred from the electromotor to the compressor by a semi-rigid coupling clutch which is entirely unsuitable. The absence of a return valve pipe seems to constitute the main defect of the compressor ЗИФ/ВКС-5. The compressor ЗИФ-55 (Fig.4) is powered by the car petrol engine ЗИС-120 (or ЗИС-121) and is most suitable for use on building sites. This compressor, however, has a high fuel consumption (10 - 15% more than specified by the norm). The

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100-7-10/11

The Use of Mobile Compressors in the Building Industry

MPB of various building trusts and the MPB of the Ukrstroy-mekhanizatsiya in Khar'kov found an error in the norm whilst studying the same. The compressor BKC-55 is equipped with an automatic regulator and it was shown that this regulator should be set for pressures of 0.2 - 0.3 atm; this is lower than the pressure stated for [illegible]-55 (7 1/2 atm.). On the receivers of these compressors between 4 - 6 pipe connectors are fitted. The compressor is able to supply compressed air to 3 drills for a distance of 20 to 25 m and to 2 drills for 40 to 50 m. One drill can be supplied at a distance of 100 m or at a distance of 30 m, when it is at a height of 10 m. This is due to faulty conditions of the compressor and the pipes. Only 15 to 25% efficiency can be achieved. The moisture content of the compressed air causes corrosion during the summer and quick wear of the machinery during the winter. Depending on the temperature 20 minutes of every 30 to 90 min. are lost when the pneumatic tools are heated. The compressors should be equipped with devices for separating the moisture. It was found that it was essential to remove the condensate from the compressor during each shift. It should be carried out even more frequently when new or small compressors are used.

Card 2/3

The Use of Mobile Compressors in the Building Industry 100-7-10/11

There are 4 figures.

AVAILABLE: Library of Congress

Card 3/3

1. Air compressors-Performance 2. Construction-Equipment

PODOLYAK, A.A., inzh.

Experience in operating mobile air compressors in construction work.
Mekh.stroi. 14 no.7:25-26 Jl '57. (MIRA 10:11)
(Air compressors)

PODOLYAK, I., kand. tekhn. nauk; ZARENIN, V., inzh.; ANISKIN, I., inzh.; MUKHIN, Yu., inzh.; BIRMAN, A., inzh.

Vermiculite concrete in large-panel housing construction. Zhil. stroi. no.7:8-9 '65. (MIRA 18:8)

PODOLYAK, F.

Vermiculite in exterior elements. Na stroi. Ros. 3 no.1:29 Ja '62. (MIRA 16:5)

1. Glavnyy tekhnolog laboratorii ograzhdayushchikh konstruktsiy Ural'skogo filiala Akademii stroitel'stva i arkhitektury SSSR.
(Vermiculite) (Concrete walls)

POPOV, N.A., dokter tekhn. nauk, prof., zasluzhennyy deyatel' nauki i tekhniki; PODOLYAK, F.S., inzh.

Using expanded vermiculite in the manufacture of large panels. Stroi. mat. 10 no.2:18-19 F '64. (MIRA 17:6)

PODOLYAK, Fedor Stepanovich; SVET, Ye.B., red.; KUZNETSOVA, O.Ya., tekhn. red.

[Experience in using vermiculite in large-panel construction] Opyt primeneniia vermikulita v krupnopanel'nom stroitel'stve. Cheliabinsk, Cheliabinskoe knizhnoe izd-vo, 1963. 110 p. (MIRA 17:3)

PODOLYAK, F.S., inzh.

Practices of setting contact network poles in rocks without using foundations. Transp. stroi. 10 no. 12:16-18 D '60. (MIRA 13:12)

(Electric lines--Poles) (Electric railroads--Wires and wiring)

Name: PODOLYAK, Georgiy Alekseyevich

Dissertation: Prolapsus of the rectum (pathogeny, clinic, and treatment)

Degree: Doc Med Sci

Affiliation: [not indicated]

Defense Date, Place: 25 Feb 57, Council of Military-Med Acad imeni Kirov

Certification Date: 16 Nov 57

Source: BMVO 24/57

PODOLYAK, G.A., doktor med.nauk

Chylothorax after thoracic operations. Vest.khir. 89 no.7: 112-113 Jl '62. (MIRA 15:8)

1. Iz 1-y gospital'noy khirurgicheskoy kliniki (nach. - prof. I.S. Kolesnikov) Voyenno-meditsinskoy ordena Lenina akademii im. S.M. Kirova.

(CHYLOTHORAX) (CHEST--SURGERY)

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(ESOPHAGUS--TUMORS)

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Selecting a method for treating prolapse of the rectum. Khirurgiia 34 no.9:62-67 S '58. (MIRA 12:4)

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Surgical treatment of simultaneous prolapse of the rectum and uterus. Akush. i gin. no.6:108-110 N-D '63. (MIRA 17:12)

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1. Of the Military Medical Academy imeni S. M. Kirov.

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PODOLYAK, G.A. (Leningrad).

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1. Institut psikhologii USSR, Kiyev.
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1. Institut psikhologii, Kiyev.
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VAGNER, Ye.N.; PODOLYAK, Z.Ya.; SOLNIKOVA, R.D.; BARSHEVA, A.I., nauchnyy red.; GOFMAN, M.S., red.

[Brief German-Russian forestry and lumbering dictionary] Kratkii nemetsko-russkii lesotekhnicheskii slovar'; uchebnoe posobie dlia studentov i aspirantov lesotekhnicheskikh vuzov. Leningrad, Leningr.lesotekhn.akad.im. S.M.Kirova, 1959. (MIRA 14:2)
354 p.
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S/194/61/000/012/092/097
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AUTHOR: Chelnokov, O. A, and Podolyako, I. A.

TITLE: Frequency stability of semiconductor oscillators

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1961, 4-5, abstract 12K22 (Tr. Mosk. energ. in-ta, 1961, no. 34, 100-119)

TEXT: A transistor oscillator is theoretically analyzed and a calculation is given of its parameters ensuring a minimum (zero) variation of its frequency when several transistor parameters are given, viz. output and input capacities, and the phase of the collector current slope. Analytical results are compared with the experimental results of investigation of an oscillator operating at 20 Mc/s and using a П-403(P-403) transistor. Experimental results confirm that it is possible to improve the frequency stability by a rational choice of the oscillator circuit, of the elements ensuring proper phase relations and of the transformation coefficient. [Abstractor's note: Complete translation.]

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1. Institut issledovaniya rud, Praga.
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